

notable for low thermal sensitivity, short curing times with combined use of heat and UV light, good blocking resistance on storage, and very good surface smoothness of the coatings or coating systems obtained from them.

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The binder mixtures and coating materials of the invention are substantially free from double bonds which readily undergo thermal polymerization; they have a high level of stability to thermal loads and atmospheric oxygen, and are nevertheless crosslinkable with a high reactivity, surprisingly, on exposure to actinic radiation such as electron beams or, preferably, UV light, especially in the case of simultaneous heating. Furthermore, at room temperature under customary ambient lighting conditions, their photosensitivity is low, and so they can be handled without particular protective measures.

It is a further particular advantage of the binder mixtures or coating materials of the invention that they may be readily combined with substances having readily polymerizable double bonds, especially acrylic or vinylic double bonds, in order to adapt them to specific end uses.

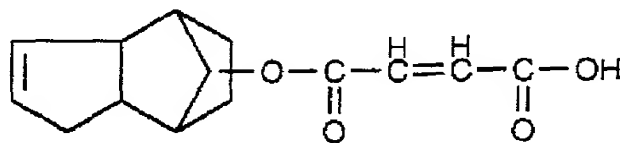
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The first key constituent of the binder mixture of the invention is at least one polymer (A) having a saturated main chain that is not a polyester.

- 5 In the context of the present invention, a polymer (A) should also be understood as including a comparatively low molecular mass compound or an oligomer (A) provided it has a profile of properties which is not contradictory to its use in the binder mixture of the invention. In particular, it must be solid. In accordance with the invention, however, polymers (A) are of advantage and are therefore used with preference.
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- 15 The polymer (A) may contain at least one structural unit I and/or II.

These structural units I and/or II may be incorporated in the form of the structural unit V

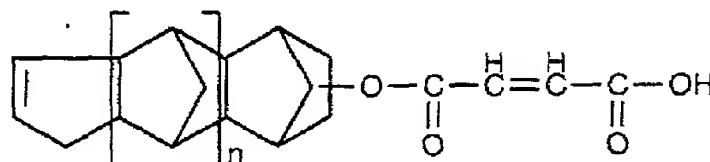
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(V) in which the variable X is an oxygen atom or an NH group, but especially an oxygen atom;

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and the structural unit II may be incorporated in the form of the structural units VI



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(VI) in which the index n is an integer from 1 to 10 and the variable X is as defined above.

Suitable starting compounds for introducing these structural units V and VI are the maleic and fumaric monoesters of monomeric or oligomeric dihydrodicyclopentadienol.

Where the polymer (A) contains no structural unit I or II, it must contain covalently bonded photoinitiators of the Norrish II type as side groups and/or end groups. Photoinitiators of this kind are customary and known. Their mechanism of action is based on an intramolecular variant of the hydrogen abstraction reactions as occur diversely in photochemical reactions. By way of example, reference may be made here to Römpp Chemie Lexikon, 9th, expanded and revised edition, Georg Thieme Verlag Stuttgart, Vol. 4, 1991. An example of a suitable photoinitiator of this kind